SEMICON EUROPA 2014: Innovation for Industry
7-9 October 2014 – ALPEXPO / Grenoble, France

Heinz Kundert, President SEMI Europe
Why rotate between Dresden and Grenoble?

- Strategy based on the intention to significantly increase the global semiconductor manufacturing share by public/private investment plans throughout Europe by the European Commission
- SEMI has decided to rotate SEMICON Europe between the two largest semiconductor R&D and manufacturing clusters in Europe
- SEMICON Europa 2015 will return to Dresden in 2015
- We are confident this rotation concept will provide increased business opportunities for our exhibitors and visitors
- We believe this strategy strongly supports the recently announced European Union’s EU10/100/20 initiative [www.semi.org/eu10-100-20](http://www.semi.org/eu10-100-20)
- Strong support and commitment by the local industry, organizations, government and institutes in France
SEMICON Europa 2014 @ Grenoble

• A definite strategy of balancing the event between the 2 most significant European microelectronics clusters

• A common project for the local community with tasks assigned to Working Teams, and regular meetings

• A strong commitment to increase attractiveness by:
  – enriching the Program,
  – extending the Semiconductor scope
  – going beyond «Equipment and Materials»
  – taking advantage of Grenoble’s specificities and strongholds

• Join SEMICON Europa 2014 in Grenoble and explore new business segments and technical programs addressing Emerging Markets.
The city of Grenoble is very proud to welcome SEMICON Europa 2014 for the first time and in rotation with the city of Dresden, with which we have a longstanding collaboration. Our region has been deeply involved and active in the microelectronics field since many years with the presence of industrial world leaders as well as world-class Research Institutes and numerous startups. I am convinced that SEMICON 2014 will definitely confirm our international visibility said Michel Destot, Mayor of Grenoble and member of the French Parliament.

“This decision is very good news for the microelectronics ecosystem of Grenoble and for the collaboration of European clusters. We wish to contribute to the success of the SEMICON Europa event for the benefits of European SME’s, startups, research and large groups enabling networking and collaborations of all stakeholders,” said Loic Lietar, President of Minalogic.

The City of Dresden also supports SEMI’s decision. “We are very proud that — for five times in a row — the industry chose Europe’s largest micro- and nanoelectronics site to discuss current topics and trends. Dresden has been the origin of critical input that led to a re-evaluation of the semiconductor industry by the European Commission,” said Dirk Hilbert, Deputy Mayor of Dresden: “Coexisting European semiconductor sites more and more become cooperating alliance partners.” Hilbert expects Dresden and Grenoble to further work together in interdisciplinary topics such as Industry 4.0 in the future.

The German industry association Silicon Saxony e.V. supports the new exhibition strategy. “SEMI’s decision now is another step to further strengthen the idea of a competitive European semiconductor industry,” said Heinz Martin Esser, President of Silicon Saxony e.V. “It was Saxony where the European cluster alliance ‘Silicon Europe – The Leaders for Energy Efficient ICT Electronics’ was born. We are joining forces in the spirit of a pan-European strengthening. Our connection with Grenoble will also entail further benefits for Dresden.”
Anne-Marie Dutron
Directeur General, SEMI Europe Grenoble Office
Welcome to Grenoble:  
*Bienvenue à SEMICON Europa 2014!*

- A scientific hub unlike any other in the world with:
  - 3,600 researching professors in 129 university laboratories
  - 3,700 doctoral students, 45% of whom are foreigners
  - 9 national research bodies: CNRS, CEA, IRSTEA, CEN, CRSSA, INRA, INRIA, INSERM, IRD
  - 5 major international facilities: ESRF, ILL, EMBL, GHMFL, IRAM
  - 14,000 visiting foreign scientists every year
  - 3 competitive centers: Minalogic, Tenerrdis, Axelera
Why Grenoble?

_Grenoble: Long-term investments in Microelectronics_

- €8bn invested in the past 10 years locally
  - ALLIANCE-CROLLES 2 (2002-2007)
    - €3bn
  - NANO 2012 (2008-2012) –Crolles site:
    - €3bn
  - MINATEC (2006)
    - €1.3bn in 10 years
  - MINALOGIC (since 2005)
    - €1.78bn
  - SOITEC 2010
    - €115m
  - IRT NANOELEC (2011-21) – Technological Research Institute
    - €460m
Why Grenoble?

*Investments will continue*

- **Nano 2017: 2012-2017:**
  - 5-year public-private program: **3.5 billion €**, with
    - 600 million € -will be provided by the National Government
    - 400 million € from Europe
    - 100 million € from local Grenoble Authorities
  - **1.5 billion € of Capex from ST** (plans to double the capacity of its 300mm fab in Crolles, France. Fab production will increase from 15000 to 30000 wafers per month).

- **GIANT 2010-2025**
  - **1.5 billion €** investment for a Unique Innovation Campus
A unique Ecosystem ...

Grenoble INP, 2nd French engineering school according to the QS World University Rankings Engineering & Technology 2011

65,250 students
9,000 foreign students
13 doctoral schools

23,000 jobs in research

180,800 jobs in industry and business services

A solid and diversified industrial background with an international dimension

True Synergy between Research, Higher Education, Industry & Local Authorities

With 45% of strategic jobs in research, Grenoble is the top location in France for research jobs:

- Air Liquide
- Alstom Hydro
- BD
- Caterpillar
- EDF
- HP
- Schneider Electric
- Siemens
- STMicroelectronics
- Tecumseh Europe

France
Gas, hydrogen-energy

France
Equipt. turbines

USA
Medical devices

USA
Earth moving eqpt

France
Energy

USA
Computing

France
Electrical Equipment

Germ.
Mechanical eng.

Fr / It
Microelectronics

USA
Mechanical eng.
... with the complete Value Chain...
...and with a constant flow of Start-Up’s

During the last 10 years, 165 start-ups have been created:
Enabling Innovative Products...

Grenoble – Isère inside:

- SOITEC SOI inside the Wii, Sony Playstation, Xbox, iPhone and inside 50% of all mobile phones in the world
- Orange labs inside the Livebox Play
- 70% of worldwide SMS are sent through HP software developed in Grenoble
- Gorgy Timing: displays the exact time in France and worldwide
- STMicroelectronics: in iPhone
- Orly system in TV set top boxes
- Trixell’s digital detectors in 50% of digital radiology devices in the world
With MINALOGIC as Cluster for Innovation

Mission: Set up collaborative R&D projects associating Research and Industry - Support Start-Up's and SME's business development

220 members

240 projects financed

Total R&D spending of around €1.82 billion
With MINATEC as Campus for Collaboration

**Key Figures**
- 3000 research staff from academy to industrial research
- 1200 students (+ 150 PhD)

**Platforms**
- Nanocharacterization, Photonics...
- > 50 labs

**Platforms for education**
- > 700 sqm cleanrooms
- Training rooms

**Technological platforms**
- > 10 000 sqm clean rooms
- Annual Budget: 400 M€
- 60% on contract research
- 1.5 B€ invested in 10 years

**Tech Transfer Office**
- >150 pers. involved in Techno Transfer

**Dedicated building for industrial partners**
- Offices, labs & cleanrooms to rent

**5 000 sqm meeting & conference rooms**

# 300 new patents per year
- 1600 scientific publications per year
- # 10 start-up/year
With GIANT as the new European M.I.T.

1.5B€ in Europe 2010-2025 for a

Unique Innovation Campus
To Summarize Grenoble

• Top 5 WORLD'S 15 MOST INVENTIVE CITIES (Forbes 2013)

• Provide a strong R&D and “innovation” platform.

• Attract large groups as well as SME’s, investors...

• access to vertical markets such as healthcare, life sciences, bio, IT, aerospace, and automotive industries
In addition to current industry program content, Grenoble will allow for new programs and content focusing on applications for selected vertical markets and end users.

**Key Focus:**

- Applications
- Innovation
Enlarging the scope of SEMICON Europa

Semiconductor, Plastic and Flexible Electronics Manufacturing

APPLICATIONS

- HEALTH
- ENERGY
- TRANSPORT
- SECURITY
- LIGHTING
- CONSUMER
What’s new?

• Going beyond «Equipment and Materials» in line with the Grenoble cluster’s strengths.
  – New Exhibitor Segments in 2014:
    • Electronics Components
    • Electronic Applications
    • Innovation and Start-up village
  – New Programs 2014:
    • Imaging Conference
      – Components and sensors, integration
    • Energy Efficiency Conference
      – Low power, power electronics (FDSOI etc..)
  – Side events:
    • Happy hours
    • Gala Dinner “à la française”
  – SEMICON Europa 2014 Theme:
    INNOVATION FOR INDUSTRY
What about Plastic/Flexible Electronics 2014?

• Flexible, Printed, Organic electronics must be considered as a technology complementary to the traditional electronics.

• The production of a final Flexible products is complex and requires a large set of competencies and process.

• The traditional semiconductor food chain is used to complex integration and will play a major role in the industrialization of these innovative electronic devices.

• PE Exhibition zone is announced as fully integrated to the different segments from Materials to Applications (NEW) and where customers (IDM but also OEM) can source it as well as the traditional ones to make innovative products.
SEMICON EUROPA 2014 : A step towards Horizon 2020

Ambition:

• Offer an amazing visit along the value chain of electronics and innovative technologies

• Top Conferences Addressing Key topics for Electronic Industry

Exhibition Zones Concept
Grenoble welcomes the world

**ALPEXPO exhibition center**

- ALPEXPO is the place in Grenoble where SEMICON Europa 2014 will be hosted.
- Recently revamped
- Two international airports:
  - Lyon Saint-Exupéry Airport (1 hour from Grenoble)
  - Geneva Airport (1 hour 30 min from Grenoble)
- Arriving by train:
  - Central train station ideally located in the city center
  - 3 hours from Paris (on the high speed TGV train)
Grenoble Infrastructures: Strengths

- Sufficient capacity and suitable infrastructure for SEMICON Europa
- Flexibility, modularity, customization as needed
- Proximity of exhibition areas, conferencing, entertainment: all in One area
- Easy access by car and public transportation
- Large parking capacity
- Easy security control
Grenoble: A Gastronomic City

In a region reputed for its gastronomy, Grenoble offers a remarkable spread...

• A wide range of gastronomic restaurants using the best of local products

• 2 Restaurants «Deux Etoiles Michelin» (Two Michelin Stars) close to Grenoble:
  – Les Terrasses in Uriage-les-Bains, 16 km
  – La Pyramide in Vienne, 105 km

• Top-quality caterers, belonging to the organization “Les Traiteurs de France” and “Qualitraiteur”.

➢ Grenoble is a great location to host your customer events during SEMICON Europa!
See you at the next SEMICON Europa in Grenoble, France

October 7-9, 2014

www.semiconeuropa.org/grenoble
Back up slides
Grenoble: with top quality accommodation

• Over 5,000 hotel rooms in and around Grenoble

• Hotels per category:
  – 13 Hotels **** / 985 rooms
  – 41 Hotels *** / 2,263 rooms
  – 30 Hotels ** / 1,203 rooms
  – 20 Hotels Residence

• 90% of all accommodation in Grenoble are close to a tram station
KEY TOPICS at SEMICON Europa 2014

• Traditional Semiconductor Manufacturing and research
  – 450mm transition
  – Lithography and EUV
  – MEMS
  – Packaging and Test
  – 3D TSV technology
  – Fab Enhancement and Improvement
  – Research and Development
  – Country Pavilions
  – Executive summit and networking events

• In addition
  – Imaging
  – Energy efficiency
  – Plastic and Flexible Electronics
  – Innovation in technology for innovative products
  – Applications
The INNOVATION VILLAGE

Start ups exposition

Sponsors and partners

Demos Zone

Innovation Arena

Meeting rooms

Open Space for:
- Keynotes
- Roundtable
- Investors Forum (SIF)